

Robert L Armstrong - McCarolina

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64 So. 9th Street.

admitted March 8th 1820. -

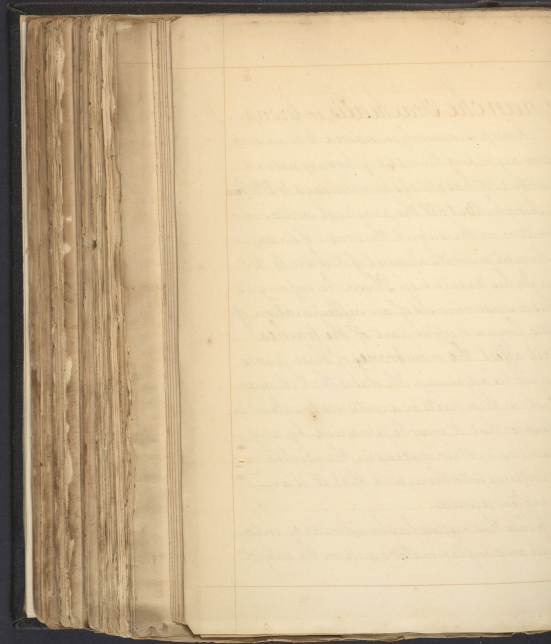
Robert L. Livingston

Sept. 11. 1802

Cynanche Trachealis, or Croup.

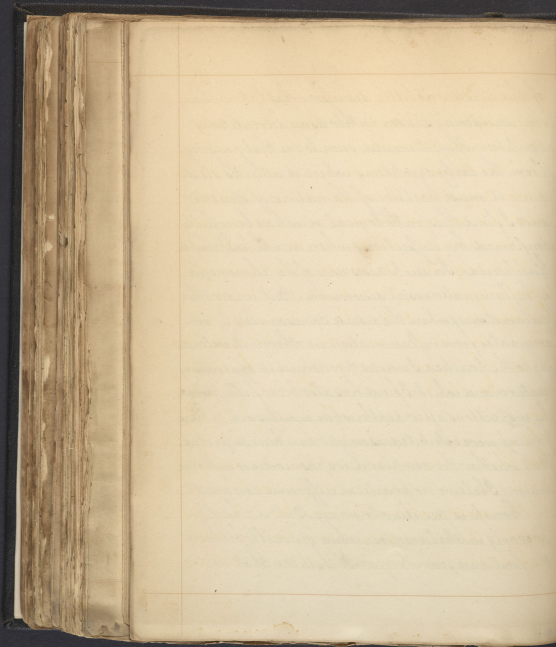
Croup is commonly considered to be a disease of modern origin, and the credit of having noticed and described it has always been conceded to Dr. Home of Edinburgh. But all the practical writers who have written on the subject the credit of having given the most accurate account of it is due to Dr. Cullen. In his practice of Physic he informs us that this disease consists of an inflammation of the glottis, larynx, or upper part of the trachea whether it affect the membranes of these parts or the muscles adjoining. He states that it may arise first in these parts and continue to subsist in them alone, or that it may be produced by any irregularities in other diseases in the neighbouring parts spreading into them, and that it is an inflammatory disease.

Of late this disease has been divided into spasmodic and inflammatory, and on the subject

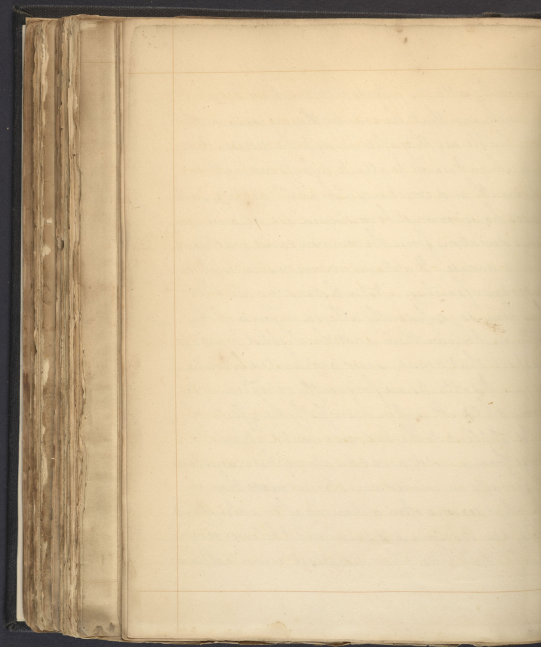


of this division no little discussion has taken place, some considering spasm rather as an adventitious symptom. But it would seem to me that judging from the early symptoms where it attacks suddenly it must partake of the nature of spasm, and I find this pathological view has been fully confirmed by dissections when death has promptly happened. In such cases none of the phenomena of inflammation were discoverable. But under other circumstances where the disease comes on slowly or originates from inflammation in other parts extending to the trachea, I would pronounce it of a contrary nature, and which I find has also been fully proven by inspections after death, when exactly such phenomena were exhibited as might have been expected. But whether the complaint is spasmodic or inflammatory, I believe no practical difference can result.

Croup is peculiar to no age. But it chiefly prevails in children, occurring generally between the first and seventh year. It is stated that it

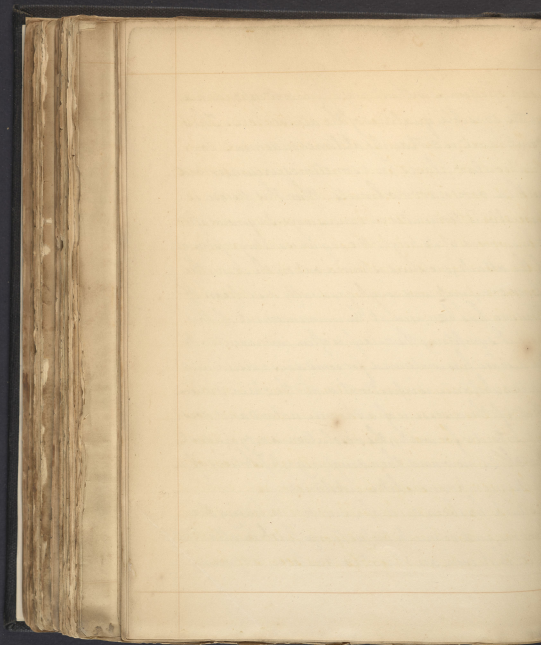


generally attacks infants after they have been weaned, and that the younger they are weaned the more liable are they afterwards to the disease. But it has been known to attack infants even within the month and sometimes also adult subjects; such cases however must be considered as rare and anomalous deviations from the common course and character of the disease. It appears in some instances to belong to certain families. Notwithstanding all that has been so confidently alleged in favour of the ^{contrary} opinion, I believe there is not the slightest reason to suspect that croup is ever propagated by contagion. Its attacks are frequently repeated in the same child. It is often manifestly the effects of cold applied to the body, and would appear to arise from a moist and cold atmosphere, and hence it prevails in winter and spring more than in the other seasons, often appearing after a cloudy and hazy day. By some it is said (and I believe very justly) that like other diseases it prevails at times



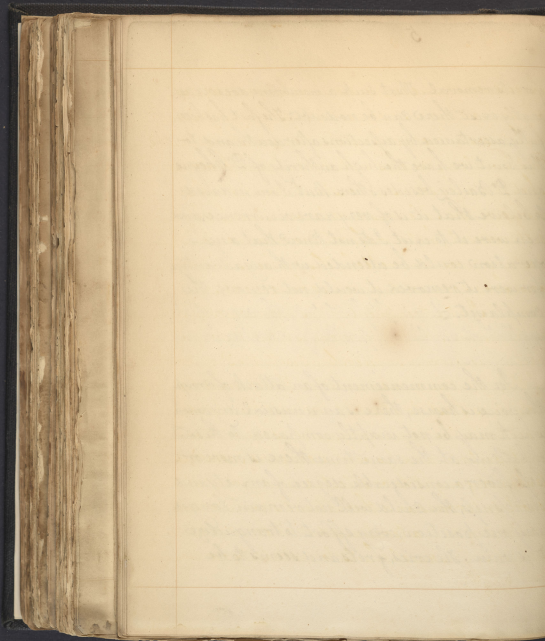
as an epidemic without any apparent dependance on the sensible qualities of the atmosphere. This complaint is certainly at times endemial to particular places, and sometimes circumscribed within very narrow limits. When this disease is favorable it terminates in various ways. In general after it has arrived at its height the sequel is a retrogression of the attack, moisture is poured out on the skin, the fever eases, and cough gradually disappears. If bleeding has been used at the commencement of the violent symptoms the relief is often immediate. If the disease has continued for some days a viscid and white substance is expectorated and the child is relieved. But if the disease is of a chronic nature and does not subside for weeks, the resolution is very gradual, the child now and then coughing up portions of a white membranous like substance.

Much has been said of a membrane lining the larynx, and so much importance has been attached to it that even an operation has been proposed



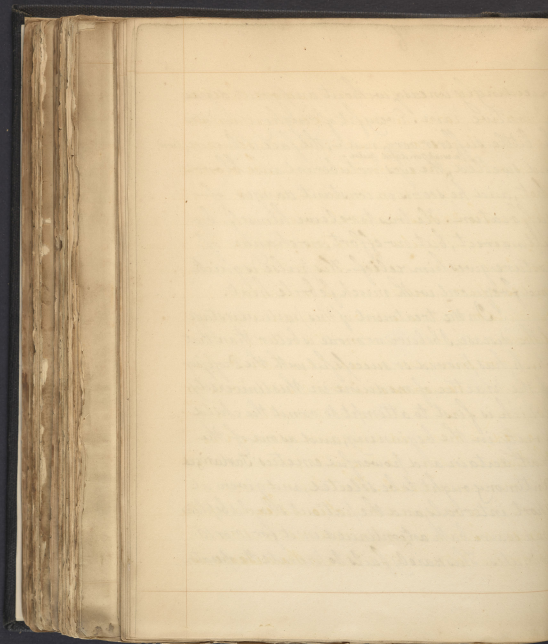
for its removal. That such a membrane does occasionally exist there can be no doubt. The fact has been fully ascertained by dissections after death, and to this point we have the high authority of Dr. Cheyne and Dr. Bailey, besides others. But I am induced to believe that it is of very rare occurrence, and even were it to exist, I do not know that any operation could be attended with any advantage. For were it removed it would not remove the complaint, it only facilitates the cure which is all that could be expected from such an operation.

In the commencement of an attack of Croup the voice is hoarse, there is an unusual dry cough which may be not inaptly compared to the sound of barking, at the same time there is more or less fever, a considerable degree of anxiety and restlessness, the child will not remain long in any one position, every effort to tranquilize it is vain. It cries, frets and seems to be



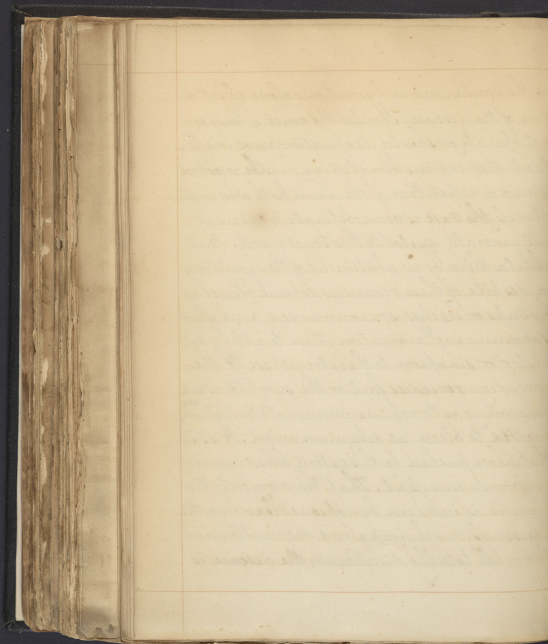
exceedingly uneasy, without any great degree of positive pain. Every fit of coughing agitates the little sufferer very much, the face is flushed, livid, and swelled, ^{a weak undulating pulse -} the eyes protuberant and blood shot, and he seems in constant danger of suffocation. He tries to relieve himself by sitting erect, but no effort, no change of posture gives him relief. His pulse is quick and frequent with much febrile heat.

In the treatment of this particular stage of the disease, I believe no mode is better than that which has proved so successful with the Professor of the practice of medicine in this University, which is first to attempt to vomit the child freely, in the beginning; and as one of the most certain and powerful emetics Tartarizes Antimony ought to be selected, and given at short intervals, and the patient should be placed in a warm bath and continued in it for 10 or 15 minutes. This rarely fails to promote the operation



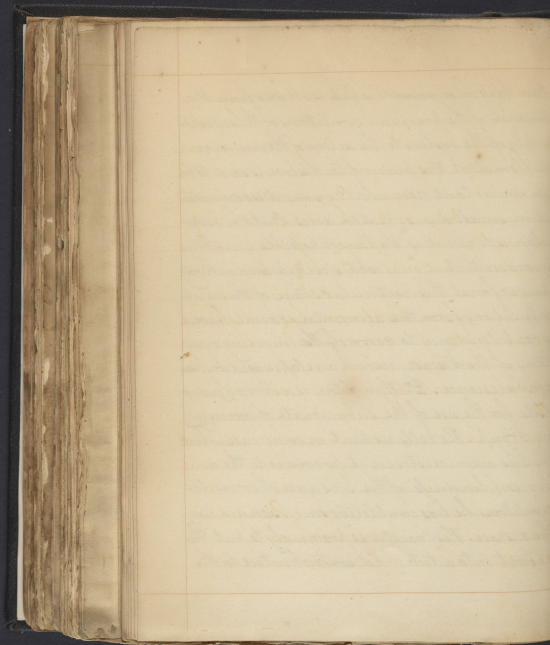
of the emetic, and will sometimes alone effect a cure of the disease. Should the emetic however not operate or should its operation prove ineffectual, then copious bloodletting must be resorted to and a repetition of the warm bath and emetic.

Unless the case is very obstinate indeed, it will generally yield to this treatment. But should there be no abatement of the symptoms, in despite of these remedies, topical bleeding by cups or leeches is recommended, and after subduing inflammation, then to apply a blister or sinapism to the extremities. If the preceding remedies fail or the symptoms are alarming as to require immediate relief, ^{we} are directed to bleed *ad deliquium animi*. It is said that when pushed to this extent, bleeding is uniformly successful. That the moment the syncope is induced by copious bleeding, the hoarseness, cough, impaired respiration and fever, all totally disappear, the disease is



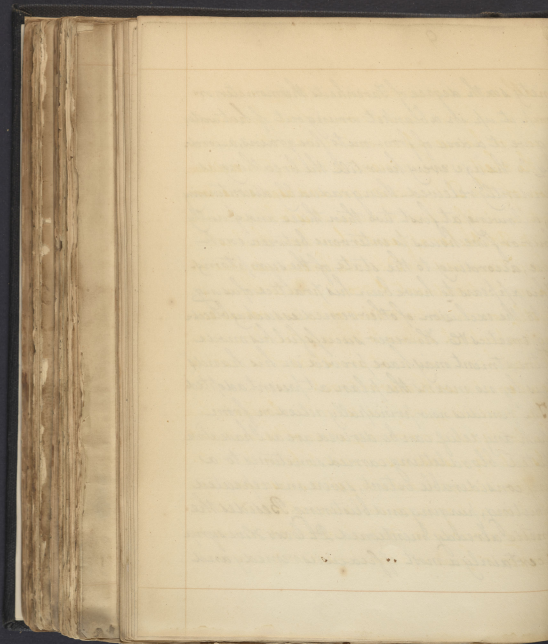
then broken or removed, which is obvious from the removal of the preceding symptoms or the susceptibility of the system to the action of the medicine.

Calomel at this period of the disease is said to be an important remedy. By some it is recommended in small and repeated doses. But the better plan is to give it in the largest possible quantity, in order that it may most speedily and actively purge, for at this particular stage of the disease evacuations from the alimentary canal have a great tendency to carry off the lingering symptoms of the disease, prevent a relapse and confirm convalescence. Dr. Hamilton is a strong advocate for the use of the submuriate of mercury in Croup. He tells us that in every case where he has administered it previous to the occurrence of lividness of the lips and other mortal symptoms, he has completely succeeded in curing the disease. His practice is previously to put the patient into a tub of hot water heated to the



ninety sixth degree of Farenheits thermometer, or wrap it up in a blanket wrung out of hot water, to give it a dose of from one to five grains, according to the age every hour till the breathing is evidently relieved - then gradually discontinuing it, allowing at first two then three and finally four or five hours to intervene between each dose, according to the state of the symptoms. This appears to have been his practice of using it to the exclusion of other remedies such as bleeding, emetics &c. However successful his mode of treatment may have proved in his hands it is by no means the plan at present adopted.

The remedies now principally relied on from which any relief can be derived are as I have above stated blood letting carried sometimes to a very considerable extent, severe and repeated vomiting, purging and blistering. Besides the emetic already mentioned Dr Coxs Olive syrup is certainly a most efficacious remedy and

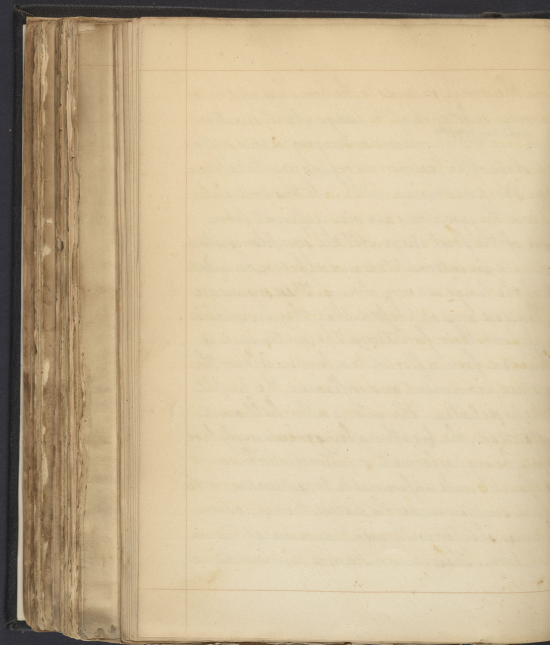


an effectual one in exciting puking in this disease. In the remains of croup where there is still cough or hoarseness accompanied with tightness of the chest and deficient expectoration a decoction of the *Polygala seneca* used as an expectorant is highly recommended, it is to be given in milk. Dr. Archer appears to have been the first who introduced the *Polygala seneca* into general use in the treatment of croup and to him is justly conceded the credit of having rendered an important service to the practice of medicine. It may be employed at any stage of the disease as an emetic with advantage.

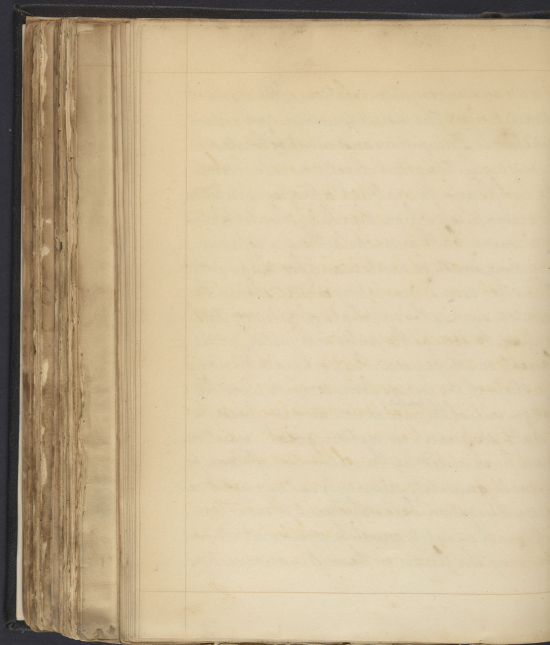
The preceding practice is particularly applicable to the early or forming stage of the complaint. As yet the disease is supposed to be confined to the trachea and consisting in a spasmodic constriction of it or in an inflammation of the lining membrane. But if permitted to run on for 8 or 10 hours and sometimes even in a shorter

1840
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time the croup extends to the bronchiae and into the very substance of the lungs. A vast secretion of ^{coagulating lymph} mucus and an engorged and suffocated state of the pulmonary organs now take place as in Peripneumonia notha. At this critical period the symptoms are very different from those of the first stage. All the symptoms which indicate an interrupted and defective circulation of the lungs are very obvious. These organs are so loaded and oppressed that they are unable to perform their functions. The countenance is changed from a florid to a leaden colour, the eyes are prominent and inflamed, the pupil widely dilated. The pulse is either full and distended, the breathing being exceedingly laborious, being performed in postures which might be thought most unfavourable to respiration, or the child sinking under the disease the respiration becomes shorter with weak and irregular circulation. These circumstances demand the most

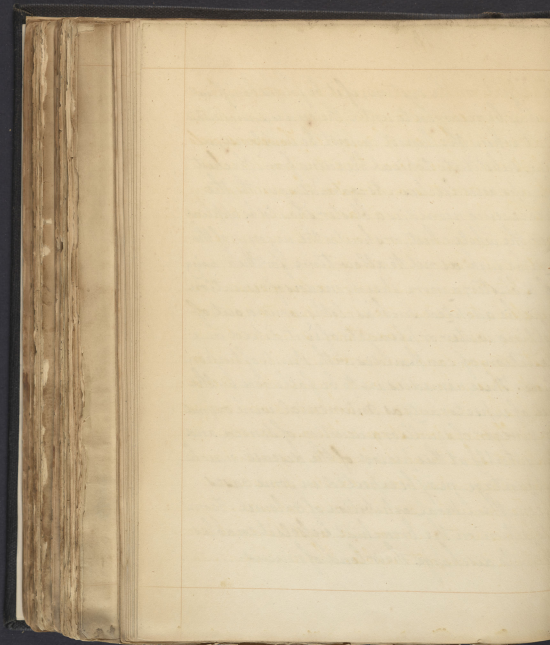


Speedy and unremitting exertions of the vigilant
 practitioner. The disease is now in every respect
 similar to Pneumonia and must be treated
 accordingly. The great object now is to relieve
 the lungs and to establish a proper circulation.
 To accomplish which the child should be placed
 in a warm bath and while there a copious
 vomiting must be excited, and for this purpose
 an active and stimulating emetic should be
 selected such as the sulphate of Zinc or Tart.
 antimon. As soon as the pulse will justify it the
 lancet must be used. But owing to the engorg-
 ed state of the lungs from so much blood being
 taken out of the ^{system} circulation and confined in
 a half stagnant condition, great caution
 must be exercised in the detraction of blood, for
 a small quantity suddenly taken might re-
 duce the system below the point of reaction.
 A small quantity must be drawn at a time
 holding the finger on the orifice and waiting



the effect on the system; if it be found beneficial it may be resorted to until the end is accomplished.

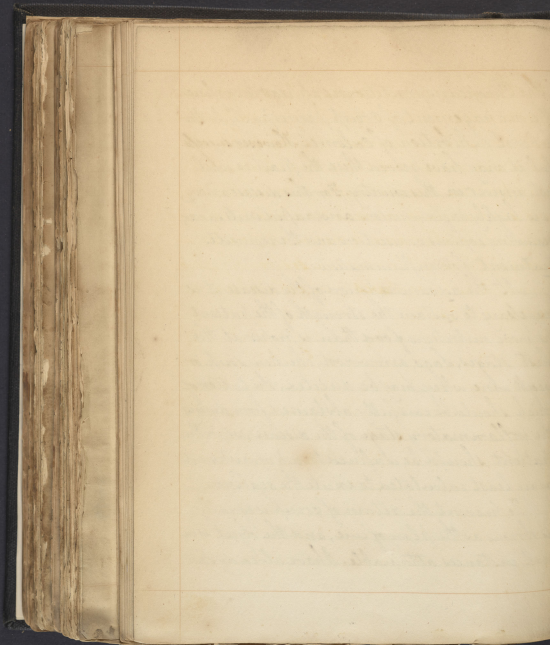
But when the lancet cannot be employed, we may substitute topical bleeding from the chest by cups and leeches. As cooperating with the preceding remedies a blister should be applied over the whole chest, or should the urgency of the case be such as not to allow time for the drawing of a blister, a more speedy means of vesication may be adopted such as cloths wrung out of boiling water or pledgets of lint dipped in a decoction of cantharides with spirits of turpentine. These remedies are to be followed by the use of expectorants as Antimonial wine or ymge or vinegar of squills or a decoction of Seneca, and frequently at this period of the disease much advantage may be expected in some cases from the liberal exhibition of Calomel. From its action on the bronchial vessels it enables them to discharge their load of mucus.



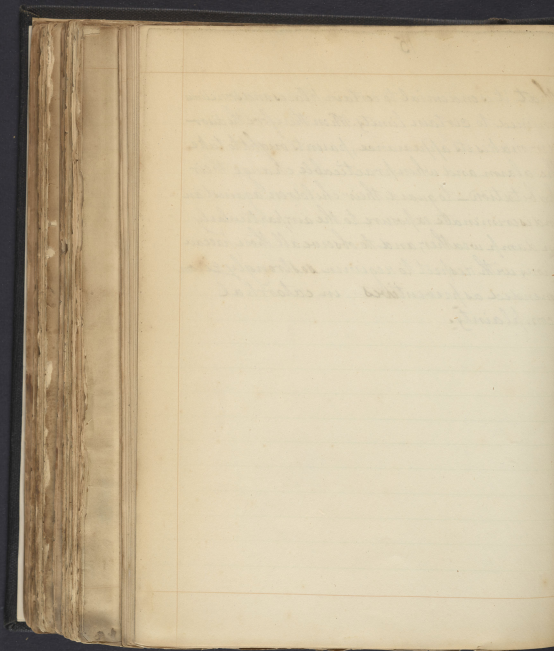
The European practitioners appear to confine the management of croup principally to the liberal exhibition of calomel. However successful it may have proved there the practice will not answer in this country. For this disease among us is highly inflammatory and rapid in its career, requiring copious venisection and the requisite treatment for inflammation.

At the advanced period of the disease it is necessary to sustain the strength of the patient by more nutritious food than is proper at the first stages, Sago, arrow-root, chicken soup or weak wine whey, may be directed, the latter of which should be carefully abstained from during the inflammatory stage of the disease, when the patient should be confined to such nourishment as are least calculated to excite the system.

To prevent the return of croup is equally as obvious as the plan of cure, and the object is in most instances attainable. I have already said



that it is endemic to certain places and sometimes confined to certain limits. When therefore the disorder makes its appearance, parents ought to take the alarm and when practicable change their habitation - to guard their children against an indiscriminate exposure to the air, particularly in damp weather, and to observe all those precautions with respect to regimen so strongly recommended as preventives in catarrhal complaints.



August 24 1881

at San Francisco

Dear Father

My dear father

